

Hakowski, Denise

From: Cooper, Laura K <Laura.K.Cooper@wv.gov>
Sent: Wednesday, June 10, 2015 11:46 AM
To: Hakowski, Denise
Subject: RE: Mussels in Kanawha River
Attachments: removed.txt

<http://www.wvdnr.gov/wildlife/RETSpecies.asp>

Here's the Pink Mucket Pearly Mussel page on WV DNR website. IT shows that they are supposed to be in "Kanawha R. (Fayette County), Elk River (Kanawha County)."

Laura K. Cooper
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Room 2169, 601 57th St SE; Charleston, WV

From: Cooper, Laura K
Sent: Wednesday, June 10, 2015 11:41 AM
To: Hakowski, Denise
Subject: FW: Mussels in Kanawha River

See below

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From: Cooper, Laura K
Sent: Wednesday, May 27, 2015 4:21 PM
To: Clayton, Janet L
Subject: RE: Mussels in Kanawha River

It's a beautiful day to be outside, even if it is in a car. ☺ Hope you're enjoying it.

So, the reason for allowing them a higher standard is because they applied for and complied with EPA's procedure for using a water-effect ratio for discharges of Copper ([found here](#)). Using that procedure, they were

able to determine that the tolerance for copper in their particular section of the Kanawha River is higher than the EPA 2007 nationally recommended Cu criteria ([found here](#)).

The EPA 2007 criteria actually did take into consideration 2 mussel species among the 27 aquatic species for which there was qualifying scientific research. These species, (which are *Actinonaias pectorosa* and *Utterbackia imbecillis*), were more tolerant of Cu than many other aquatic species, thus the Cu limit that EPA recommends is much lower than the limit expected to adversely affect mussel species.

Hopefully that gives you a little more background, and please let me know if there's a good time tomorrow that I could give you a call and we can discuss further.

Thanks,

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From: Clayton, Janet L
Sent: Wednesday, May 27, 2015 3:15 PM
To: Cooper, Laura K
Subject: Re: Mussels in Kanawha River

Laura,
I am on the road right now so difficult to call. My concern is for all mussels not just the federal T&E. CU and many other chemicals out there right now that are being released and meeting current water quality standards are most likely impacting mussels. Mussels are much more sensitive than the typical tox test organisms. I think when I responded to FWS the other day I looked the site up on the map and did not have any survey data in the immediate vicinity.

What is the reason for allowing them a higher standard?

Janet L. Clayton
Mussel Program Leader

WV Division of Natural Resources
Wildlife Resources Section
PO Box 67
Elkins, WV 26241
office 304-637-0245

From: Cooper, Laura K
Sent: Wednesday, May 27, 2015 3:09 PM
To: Clayton, Janet L
Subject: Mussels in Kanawha River

Hi Janet,

I left a message on your phone today, but wanted to follow up with an email. I'm sure you're aware at least in general of our Water Quality Standards rule change that affects Charleston Sanitary Board's total copper limit on their outfall into Kanawha River, and that Fish and Wildlife Service has raised some question as to whether there are endangered mussels in that particular area.

If you could give me a call at your convenience, that'd be great. Below is some specific information as to where exactly this outfall is located.

Thanks very much!

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Here's the lat/long of CSB's outfall: 38.371874, -81.678399

And here's what it looks like on google maps:

